

### REMARKS

Prior to entry of this amendment, claims 1, 2, 4, 5, 7-13, 15-18, and 20-25 are currently pending in the subject application. Claims 1, 10, 12, 21, and 23 have been amended. Claim 7 has been cancelled. Claims 1, 12, 21 and 23 are independent.

#### A. Introduction

In the outstanding Office action,

1. claim 10 was objected to as requiring correction of language informalities; and
2. claims 1, 2, 4, 5, 7-9, 11-13, 15-18, and 20-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Key Agreement in ad hoc Networks,” *Computer Communications*, Volume 23, Number 17, 1 November 2000 to Asokan et al. (“the Asokan et al. reference”) in view of U.S. Patent No. 6,295,361 to Kadansky et al. (“the Kadansky et al. Reference”), and further in view of “Secure Group Communications using Key Graphs”, *IEEE/ACM Transactions on Networking*, Volume 8, Number 1, February 2000 to Wong et al. (“the Wong et al. reference”).

#### B. Objection to Claim 10

In the outstanding Office action, claim 10 was objected to as requiring correction of language informalities. Claim 10 has been amended to refer to a pending claim. Therefore, it is respectfully requested that this objection be withdrawn.

#### C. Asserted Obviousness Rejection of Claims 1, 2, 4, 5, 7-9, 11-13, 15-18, and 20-25

In the outstanding Office action, claims 1, 2, 4, 5, 7-9, 11-13, 15-18, and 20-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference in view of the Kadansky et al. reference, and further in view of the Wong et al. reference. Claims 1, 12, 21, and 23 have been amended to recite limitations parallel to those recited in dependent claim 7. It is respectfully submitted that these amended claims define over the Asokan et al., Kadansky et al. reference, and Wong et al. references for at least the reasons set forth below.

In particular, the independent claims have been amended to recite that the wireless terminal “encodes the at least one modified second group key using the initial second group

key, and transmits the encoded modified second group key,” as previously recited in dependent claim 7. Thus, the claimed invention recites transmitting the first group key and the second group key in which the first group key having a weak security and the second group key having a strong security are encoded and transmitted to respective terminals, each terminal decodes the second group key, and the decoded second group key is used to encode data between the terminals.

Even assuming *arguendo* that the references may be combined, which is not conceded, the combination still fails to disclose all of the limitations now recited in the independent claims. In the Office action, the Wong et al. reference was relied on as teaching this limitation.<sup>1</sup> However, while the Wong et al. reference may disclose the server S generating new group keys encoded using users’ respective private keys, transmitting the generated group keys to respective users, encoding the new group keys using previous group keys, and multicasting the encoded new group keys to all different users, the Wong et al. reference fails to disclose hierarchical groups keys as now recited in the independent claims. In particular, the Wong et al. reference merely discloses encoding the new group keys using previous group keys, and does not disclose hierarchical group keys, e.g., the first and second group keys recited in the independent claims. Further, the Wong et al. reference fails to disclose modifying the hierarchical second group key and encoding the modified second group key using the initial second group key recited in the claimed invention.

Therefore, it is respectfully submitted that the asserted combination fails to suggest, much less disclose, the independent claims. Remaining rejected claims depend from various ones of the independent claims, and are similarly believed to be allowable. Therefore, it is respectfully requested that this rejection be withdrawn.

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<sup>1</sup> Office action mailed February 2, 2010, page 7, second paragraph

D. Conclusion

The above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome them. However, while these remarks may refer to particular claim elements, they are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied art. Accordingly, it is respectfully submitted that the claims are allowable for reasons including, but not limited to, those set forth above, and patentability of the claims does not depend solely on the particular claim elements discussed above.

The remaining document cited in the Office action was not relied on to reject the claims. Therefore, no comments concerning this document are considered necessary at this time.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

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PETITION and  
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

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